| Inde | ex of Cl | aims |
|------|----------|------|
|      |          |      |

| Application/Control No. | Applicant(s)/Patent under Reexamination |
|-------------------------|---|
| 10/615,527              | GRAUMANN ET AL.                         |
| Examiner                | Art Unit                                |

| R | Rejected |   | - |  |
|---|----------|---|---|--|
|   |          | 1 |   |  |

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| _ | (Through numeral)<br>Cancelled |
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| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| 1 | Interference |

James Kish

| Α | Appeal   |
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| 0 | Objected |

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|             |                            | ш        |          |              | _            |  |              |  |              |                 |
|-------------|----------------------------|----------|----------|--------------|--------------|--|--------------|--|--------------|-----------------|
| Cla         | im                         | Date     |          |              |              |  |              |  |              |                 |
| -016        |                            |          |          |              |              |  |              |  |              | $\dashv$        |
| <del></del> | Original                   |          |          |              |              |  |              |  |              |                 |
| Final       | įġ                         | 2/9/07   |          |              |              |  |              |  |              |                 |
| ۱           | Õ                          | 5        |          |              |              |  |              |  |              |                 |
| <b>—</b>    | 1                          | R        |          |              |              | _  |              |  |              | $\dashv$        |
| <u> </u>    | 2                          | R        | _        | -            | _            |  |              |  |              | $\dashv$        |
|             | 1<br>2<br>3<br>4<br>5<br>6 | R        |          |              | -            | _  |              | -  |              |                 |
|             | 4                          | R        |          | _            | _            |  | -            | _  |              | ヿ               |
|             | 5                          | R        |          |              | _            |  |              |  |              |                 |
|             | 6                          | R        |          |              |              |  |              |  |              |                 |
|             | 7                          | R        |          |              |              |  |              |  |              |                 |
|             | 8                          | R        |          |              |              |  |              |  |              |                 |
|             | 9                          | R        |          |              |              |  |              |  |              |                 |
|             | 10                         | R        |          |              |              |  |              |  |              |                 |
|             | 11<br>12                   | R        | _        |              |              |  |              |  |              |                 |
|             | 12                         | R        | _        |              | L_           | L_   | <u> </u>     | Ш  | Ш            |                 |
|             | 13<br>14<br>15             | R        |          | L_           |              | L_   |              | Ш  | Щ            | Ш               |
| <u></u>     | 14                         | R        |          | _            |              | L_   | <u> </u>     | Ш  | Ш            | Ш               |
|             | 15                         | R        |          | L.           |              |  |              |  |              | Ш               |
|             | 16<br>17<br>18             | R        | _        | ļ            | <u> </u>     |  | L            | Щ  | <u> </u>     | Щ               |
|             | 17                         | R        | H        | _            | <u> </u>     |  |              | Щ  |              | Ц               |
|             | 18                         | L        | <u> </u> | _            | _            | H  |              | $\Box$   |              | $\vdash$        |
| -           | 19<br>20                   | H        | ⊢        | _            | -            | ⊢  |              | Ш  |              | $\vdash$        |
|             | 21                         | $\vdash$ | ├-       |              | ┝            | ⊢  |              | H  | -            | $\dashv$        |
|             | 22                         | -        |          | $\vdash$     | <u> </u>     | ├  | _            | -  |              | $\dashv$        |
|             | 22<br>23                   | -        | -        |              | -            | ├  | $\vdash$     | -  | _            | $\dashv$        |
|             | 24                         | ╁        |          |              | -            | -  | -            |  | -            | $\dashv$        |
| -           | 24<br>25                   | ┝        | ├─       | _            | ├─           |  | -            | -  | ┝            | $\dashv$        |
|             | 26                         | ┥        | ┢═       | -            |              | $\vdash$   | $\vdash$     |  |              | Н               |
|             | 27                         | ┪        |          | _            | $\vdash$     | _  | -            | $\vdash$   | $\vdash$     | Н               |
|             | 28                         | H        | -        | _            | ┢            | _  | _            | _  |              |                 |
|             | 29                         |          |          |              | H            | <del>                                     </del> | <u> </u>     |  |              | Н               |
|             | 30                         |          |          |              | $\vdash$     | $\vdash$   |              |  |              | П               |
|             | 30<br>31                   | Г        |          |              |              |  |              | Г  |              |                 |
|             | 32                         |          |          |              |              |  |              |  |              |                 |
|             | 32<br>33                   | L        |          |              |              |  |              |  |              |                 |
|             | 34                         |          |          |              |              |  |              |  |              |                 |
|             | 35                         | 匚        |          |              |              |  |              |  |              |                 |
|             | 36                         |          | $\Box$   |              | Ĺ            |  |              |  |              |                 |
| <u> </u>    | 37                         | <u> </u> | <u> </u> | _            | Ĺ            |  |              |  | <u> </u>     | Ш               |
|             | 38                         | <u> </u> | <u> </u> | <u> </u>     | <u> </u>     | $ldsymbol{ldsymbol{eta}}$                        | <u> </u>     | L.   | <u> </u>     | Ш               |
|             | 39                         | <u> </u> | _        | _            | _            | _  | _            |  | <u> </u>     |                 |
|             | 40                         | <u> </u> | <u> </u> | _            | <u> </u>     | <u> </u>   | <u> </u>     |  | <u> </u>     | Щ               |
|             | 41                         | Ь        | <u> </u> | <u> </u>     | <u> </u>     | _  | <u> </u>     | L  | <u> </u>     | Щ               |
|             | 42                         | <u> </u> | <u> </u> | <u> </u>     | <u> </u>     | <u> </u>   | <u> </u>     | <u> </u>   | <del> </del> | $\vdash \vdash$ |
|             | 43                         | $\vdash$ | -        | _            | <b>├</b>     | <del> </del>                                     | <del> </del> | -  | <del> </del> | $\vdash \vdash$ |
| <u> </u>    | 44                         | $\vdash$ | $\vdash$ | ⊢            | -            | -  | <u> </u>     |  |              | $\vdash \vdash$ |
| <u> </u>    | 45                         | ├        | $\vdash$ | $\vdash$     | -            | -  | <u> </u>     | ₩  | <u> </u>     | Н               |
|             | 46<br>47                   | ├        |          | -            | -            |  | -            | <del> </del>                                     | $\vdash$     | Н               |
| $\vdash$    | 48                         | $\vdash$ | $\vdash$ | $\vdash$     | $\vdash$     |  | $\vdash$     | <del> </del> —                                   | $\vdash$     | Н               |
| -           | 49                         | $\vdash$ | -        | $\vdash$     | ⊢            | -  | ├            | ├  | $\vdash$     | Н               |
| <b>—</b>    | 50                         | ┢╌       |          | <del> </del> | <del> </del> | <del> </del>                                     | $\vdash$     | <del>                                     </del> | -            | Н               |

| Date     |           |          |              |  | Cla          | Date   |   |                 |          |          |  |            |                |              |              |              |  |          |
|----------|-----------|----------|--------------|--|--------------|--|---|-----------------|----------|----------|--|------------|----------------|--------------|--------------|--------------|--|----------|
| Т        |           |          |              |  |              |  |   |                 |          |          |  |            |                |              |              |              |  |          |
|          |           |          |              |  |              |  |   | 펼               | Original | Ì        |  |            |                |              |              |              |  |          |
| - 1      |           |          |              |  |              |  | ļ | Final           | ηġ       |          |  |            |                |              |              |              |  |          |
| - 1      |           |          |              |  |              |  |   | _               | 0        |          |  |            |                |              |              |              |  |          |
| +        |           | _        | -            |  |              |  |   |                 | 51       | $\neg$   |  |            |                |              | _            | _            |  | -        |
| +        | -         | -        | -            |  |              | -  | 1 |                 | 51<br>52 |          |  |            | -              | _            | _            |              |  | Н        |
| -        | -         | -        | _            |  |              | _  |   |                 | 52       | -        |  | _          |                | -            |              | -            |  | $\dashv$ |
| -        | _         |          |              |  | _            | _  |   |                 | 53       |          |  |            |                | -            |              |              |  | Н        |
| 4        | _         |          |              |  | $\vdash$     | _  |   |                 | 54       |          |  |            | -              | _            | _            |              |  | Н        |
| 4        | _         |          |              | _  | $\Box$       |  |   |                 | 55       |          |  |            |                |              |              | _            |  |          |
| 4        | _         |          |              |  |              |  |   |                 | 56       |          |  |            |                | _            |              |              |  | Ш        |
| 4        | _         | _        |              |  | Ш            |  |   |                 | 57       | _        |  | _          | _              | _            |              |              |  |          |
|          |           |          |              |  |              |  |   |                 | 58       |          |  |            |                |              |              |              |  | Ш        |
|          |           |          |              |  |              |  |   |                 | 59       |          |  |            |                |              |              |              |  |          |
|          |           |          |              |  |              |  |   |                 | 60       |          |  |            |                |              |              |              |  |          |
|          |           |          |              |  |              |  |   |                 | 61       |          |  |            |                |              |              |              |  |          |
|          |           |          |              |  |              |  |   |                 | 62       |          |  |            |                |              | Ĺ            |              |  |          |
| $\top$   |           |          |              |  |              |  |   |                 | 63       |          |  |            |                |              |              |              |  |          |
| $\neg$   |           |          |              |  |              |  |   |                 | 64       |          |  |            |                |              | П            |              |  |          |
| _        |           |          |              |  |              |  |   |                 | 65       | -        |  |            |                |              |              |              |  | П        |
| $\dashv$ | $\exists$ |          |              | П  |              |  |   |                 | 66       | _        | Н  |            |                |              |              |              |  | П        |
| $\dashv$ | -         |          |              | т  | $\vdash$     |  |   |                 | 67       |          |  |            | П              |              | $\vdash$     | Н            |  | $\vdash$ |
| $\dashv$ | _         |          |              | Н  |              |  |   | -               | 68       |          |  |            | Н              |              |              |              |  | $\vdash$ |
| $\dashv$ | -         |          |              | Н  | -            | _  |   | _               | 69       | -        |  | -          | $\vdash$       |              | _            | _            |  | $\vdash$ |
| $\dashv$ |           |          |              | $\vdash$   |              |  |   |                 | 70       |          |  |            | -              | -            | -            |              | -  | Н        |
| +        | -         | _        | _            | $\vdash$   | $\vdash$     | _  |   |                 | 71       |          |  |            |                | -            | ┝            |              |  | $\vdash$ |
| $\dashv$ | _         |          | _            |  |              | _  |   |                 | 70       |          | _  | _          | -              | -            | -            | -            | <u> </u>   | $\vdash$ |
| -        |           |          |              | _  | _            |  |   |                 | 72       |          |  | _          | <u> </u>       | <u> </u>     |              | <u> </u>     |  | $\vdash$ |
| -        |           |          | -            |  | _            |  |   |                 | 73       |          |  |            | _              | <u> </u>     | _            | _            |  | Ш        |
| 4        |           |          |              | _  | L_           |  |   |                 | 74<br>75 |          |  |            | _              | L            | <u> </u>     |              |  | Ш        |
| _        |           |          |              |  |              |  |   |                 | 75       |          |  |            |                |              |              |              |  | Щ        |
| _        |           |          |              |  |              |  |   |                 | 76       |          |  |            |                | _            |              | _            |  | Щ        |
| $\perp$  |           |          |              |  |              |  |   |                 | 77       |          |  |            |                | _            |              | _            |  | Ш        |
|          |           |          |              |  |              |  |   |                 | 78       |          |  |            |                |              |              | L            |  |          |
|          |           |          |              |  |              |  |   |                 | 79       |          |  |            |                |              |              |              |  |          |
| $\Box$   |           |          |              |  |              |  |   |                 | 80       |          |  |            |                |              |              |              |  |          |
| $\neg$   |           |          |              | Г  |              |  |   |                 | 81       |          |  |            |                |              | П            |              | Г  | $\Box$   |
|          |           |          |              |  |              |  |   |                 | 82       |          |  |            |                |              |              |              |  |          |
|          |           |          |              |  |              |  |   |                 | 82<br>83 |          |  |            |                |              |              |              | Г  | П        |
| ┪        |           |          |              |  |              |  |   |                 | 84       |          |  |            |                |              | _            | _            | _  |          |
| 十        |           | Н        |              | $\vdash$   |              | <u> </u>   |   |                 | 85       |          | <u> </u>   |            | <u> </u>       | 1            | <u> </u>     | _            | Т  | М        |
| $\dashv$ | _         | $\vdash$ | $\vdash$     | Н  |              | $\vdash$   |   | <b></b>         | 86       |          | Н  |            | Т              | $\vdash$     | $\vdash$     |              |  | Н        |
| $\dashv$ |           | -        | <del> </del> | <del>                                     </del> | -            | $\vdash$   |   | $\vdash$        | 87       |          | $\vdash$   |            | H              | $\vdash$     | $\vdash$     |              | <del>                                     </del> | $\vdash$ |
| 一        |           | -        |              |  | <del> </del> | <del>                                     </del> |   | $\vdash \vdash$ | 88       | $\vdash$ | <del>                                     </del> | -          | H              | $\vdash$     | $\vdash$     | $\vdash$     | $\vdash$   | Н        |
| $\dashv$ |           | Н        | $\vdash$     | -  | ├            | <del> </del>                                     |   | <del> </del>    | 89       | H        | $\vdash$   |            |                | <del> </del> | <del> </del> | ├-           | $\vdash$   | Н        |
| $\dashv$ |           | -        | ┢            |  |              |  |   | <del> </del>    | 90       | -        | -  | _          | $\vdash$       | -            | ├─           | <del> </del> | -  | $\vdash$ |
|          |           | <u> </u> | -            |  | ┝            | ├  |   | <u> </u>        |          | -        | ├  |            | <del>  -</del> | -            | -            | -            |  | Н        |
| -        | -         | $\vdash$ | $\vdash$     | H  | ⊢            | $\vdash$   |   |                 | 91       |          | <del> </del>                                     |            |                | -            | -            | $\vdash$     | $\vdash$   | $\vdash$ |
| _        |           | <u> </u> | _            | _  | <b> </b>     | <u> </u>   |   | <u> </u>        | 92       | <u> </u> | $\vdash$   | _          | <u> </u>       | $\vdash$     | <u> — </u>   | <del> </del> | <u> </u>   | $\vdash$ |
| _        |           | <u> </u> | <u> </u>     | <u> </u>   | <u> </u>     | <u> </u>   |   | ļ               | 93       | _        | <u> </u>   | <u> </u>   | <u> </u>       | <u> </u>     | L_           | Ь_           | <u> </u>   | $\vdash$ |
| _        |           |          | <u> </u>     | <b> </b>   |              | <u> </u>   |   | <u> </u>        | 94       |          | <u> </u>   | L.         | <u> </u>       | <u> </u>     |              | <u> </u>     | <u> </u>   | Ш        |
| _        |           |          | <u> </u>     | <u> </u>   | <u> </u>     |  | Į | L               | 95       |          | <u> </u>   | L          |                | <u> </u>     | _            |              | L  | Ш        |
|          |           | <u> </u> | L_           | <u></u>  |              |  | Į |                 | 96       |          |  | <u>L</u> . | L              | L            | L            |              |  |          |
|          |           |          |              |  |              |  |   |                 | 97       |          |  |            |                |              |              |              |  |          |
| $\Box$   |           |          |              | L  | 匚            |  |   |                 | 98       |          | L  | Ĺ          | 匚              | 匚            |              | $\Box$       | 匚  | $\Box$   |
| ╝        |           |          |              |  |              |  |   |                 | 99       | Ĺ        | Ĺ  | L          | Ĺ              | L            | Ĺ            | L            | L  | $\Box$   |
|          |           |          |              |  |              |  |   |                 | 100      |          |  |            |                |              |              |              |  |          |
| _        |           |          | •            |  |              |  | • |                 |          |          |  |            |                | _            | _            |              |  |          |

| Cla      | aim                                    |              |              |          | [            | ate          | }        |          |  | $\overline{}$   |
|----------|--|--------------|--------------|----------|--------------|--------------|----------|----------|--|-----------------|
|          |  |              |              |          |              |              |          |          |  |                 |
| Final    | Original                               |              |              |          |              |              |          |          |  |                 |
|          | 101                                    |              |              |          |              |              |          |          |  |                 |
|          | 102<br>103<br>104                      |              |              |          |              |              |          |          |  |                 |
|          | 103                                    |              |              | Ш        |              |              |          |          | _  | _               |
|          | 104                                    | _            |              |          | _            |              |          |          |  | _               |
|          | 105                                    |              |              |          |              |              |          |          |  |                 |
|          | 106<br>107                             | -            | _            | -        |              |              |          | _        |  | -               |
|          | 108                                    | -            |              | ┝        |              |              |          |          | $\vdash$   |                 |
|          | 109                                    |              | -            | $\vdash$ | Н            |              |          |          |  | $\neg$          |
|          | 110                                    |              |              | -        |              |              |          |          |  |                 |
|          | 110<br>111                             |              |              |          |              |              |          |          |  |                 |
|          | 112                                    |              |              |          |              |              |          |          |  |                 |
|          | 113<br>114<br>115                      |              |              |          |              |              |          |          |  | $\Box$          |
|          | 114                                    |              |              | _        | Ш            |              |          | _        |  |                 |
|          | 115                                    |              |              | _        |              |              |          |          |  | Ш               |
|          | 116<br>117                             |              | <u> </u>     | _        | _            | _            |          |          | _  | $\vdash$        |
|          | 117                                    | -            | _            | $\vdash$ |              | -            |          | _        | $\vdash$   | $\vdash\dashv$  |
|          | 119                                    | H            | _            | -        |              |              | _        |          |  | $\vdash$        |
|          | 120                                    |              | <del> </del> | $\vdash$ |              | _            | _        |          |  | $\vdash \vdash$ |
|          | 121                                    | _            | $\vdash$     | Т        |              |              | Т        | _        |  | Н               |
|          | 122                                    |              |              |          |              |              |          |          |  |                 |
|          | 121<br>122<br>123<br>124<br>125<br>126 |              |              |          |              |              |          |          |  |                 |
|          | 124                                    |              |              |          |              |              |          |          |  |                 |
|          | 125                                    | _            |              | L        |              |              |          |          |  |                 |
|          | 126                                    |              |              | <u> </u> |              | _            | <u> </u> |          | _  | _               |
|          | 127<br>128<br>129                      | $\vdash$     | -            | ┢        |              |              | <u> </u> |          | H  | Н               |
| <u> </u> | 120                                    | -            |              | ├        | H            |              | $\vdash$ |          | ┝  | -               |
| $\vdash$ | 130                                    | ┢            |              | $\vdash$ | <del> </del> | _            | $\vdash$ | _        | $\vdash$   | Н               |
|          | 130<br>131                             | H            | $\vdash$     | $\vdash$ |              | $\vdash$     | $\vdash$ |          | <del> </del>                                     | $\vdash$        |
|          | 132                                    |              | T            | Г        |              | _            |          |          | $\vdash$   | П               |
|          | 133                                    |              |              |          |              |              |          |          |  |                 |
|          | 134                                    |              |              |          |              |              | 匚        |          |  |                 |
|          | 135                                    | <u> </u>     | _            | <u> </u> | <u> </u>     | L            | <u>L</u> | <u> </u> |  | Ш               |
| <u> </u> | 136                                    | _            | _            | _        | ļ            | L            | <u> </u> | <u> </u> | <u> </u>   | $\vdash$        |
|          | 137                                    | -            | -            | 1        | L            | $\vdash$     | _        | ļ        | ├-   | $\vdash$        |
|          | 138<br>139                             | <del> </del> | $\vdash$     | ├        | -            | $\vdash$     | ├        | ┝        |  | $\vdash$        |
|          | 140                                    | _            | $\vdash$     | ┢        | ├-           | <del> </del> | -        |          | ┢  | Н               |
|          | 141                                    | $\vdash$     | $\vdash$     | $t^-$    | -            | $\vdash$     | -        |          | <del>                                     </del> | H               |
|          | 142                                    |              | Н            | $\vdash$ | $\vdash$     | $\vdash$     |          | $\vdash$ | <del>                                     </del> | $\vdash$        |
| <b></b>  | 143                                    |              |              |          |              |              |          | Г        |  |                 |
|          | 144                                    |              |              |          |              |              |          |          |  |                 |
|          | 145                                    |              |              |          |              |              |          |          |  |                 |
|          | 146                                    | <u> </u>     | _            | <u> </u> | <u> </u>     | L            |          | L        | <u> </u>   | Щ               |
|          | 147                                    | <u> </u>     |              | <b>—</b> | -            |              | _        | <u> </u> | <del> </del>                                     | $\vdash \vdash$ |
| <u> </u> | 148                                    | _            | H            | $\vdash$ | ├            | -            | ┝        | ⊢        | -  | H               |
| <b></b>  | 149<br>150                             |              | $\vdash$     | $\vdash$ | $\vdash$     | $\vdash$     | $\vdash$ | $\vdash$ | $\vdash$   | $\vdash$        |
| L        | 100                                    | <u> </u>     | Щ.           |          | <u> </u>     | L            |          |          | Щ  | ш               |